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CLAIMS

 A hydrogen-absorbing alloy comprises a composition expressed by the general formula:

Ti(100-a-b-c-d)CraVbNicXd.

where X is at least one member selected from the group consisting of Y (yttrium), lanthanoids, Pd and Pt, each of a, b, c and d is represented, in terms of atomic*, by the relations $8 \le a \le 50$, $30 < b \le 60$, $5 \le c \le 15$, $2 \le d \le 10$ and $40 \le a + 10$

b + c + d ≤ 90;

and a crystal structure of a principal phase which is a body-centered cubic structure.

A hydrogen-absorbing alloy comprises a composition expressed by the general formula:

Ti(100-a-b-c-d)CraVbNicXd,

where X is at least one member selected from the group consisting of Y (yttrium), lanthanoids, Pd and Pt and each of a, b, c and d is represented, in terms of atomic%, by the relations $8 \le a \le 50$, $0 < b \le 30$, $5 \le c \le 15$, $2 \le d \le 10$ and $40 \le a + b + c + d \le 90$:

and a crystal structure of a principal phase which is converted to a body-centered cubic structure by heattreatment.

25 3. A hydrogen-absorbing alloy comprises a composition expressed by the general formula:

Ti(100-a-b-c-d)CraMbNicXd.

where M is at least one of Mo and W, X is at least one member selected from the group consisting of Y (yttrium), lanthanoids, Pd and Pt, and each of a, b, c and d is expressed, in terms of atomic*, by the relations $8 \le a \le 50$, $30 < b \le 60$, $5 \le c \le 15$, $2 \le d \le 10$ and $40 \le a + b + c + d \le 90$;

35 and a crystal structure of a principal phase which is converted to a body-centered cubic structure by heattreatment. 10

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- 4. A hydrogen-absorbing alloy having the composition according to any of claims 1 through 3, wherein the principle phase exists within the range where a body-centered cubic structure appears and a spinodal decomposition occurs, exclusive of a C14 single-phase region, where C14 is a typical structure of a Laves phase and MgZn₂ type crystal structure; and said principal phase has a regular periodical structure and its apparent lattice constant is from 0.2950 nm to 0.3150 nm.
- 5. A hydrogen-absorbing alloy according to claim 2 or 3, wherein heat-treatment comprises solution treatment conducted for 1 min to 100 hr at a temperature range of from 700 to 1500°C, and one or both treatments selected from quenching and aging of from 350 to 1200°C after solution treatment.
- A cell electrode comprising said hydrogenabsorbing alloy according to any one of claims 1 through
- 7. A cell electrode according to claim 6, wherein said cell electrode has excellent cell characteristics in the maximum discharge capacity and the capacity retaining ratio after 100 charge/discharge cycles.
- A cell electrode according to claim 7, wherein the maximum discharge capacity is 375 to 465 mAh/g and the capacity retaining ratio after 100 charge/discharge cycles is 80 to 95%.